



STATE OF MARYLAND

# DMMH

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**March 2, 2012**

## Public Health & Emergency Preparedness Bulletin: # 2012:08 Reporting for the week ending 02/25/12 (MMWR Week #08)

### CURRENT HOMELAND SECURITY THREAT LEVELS

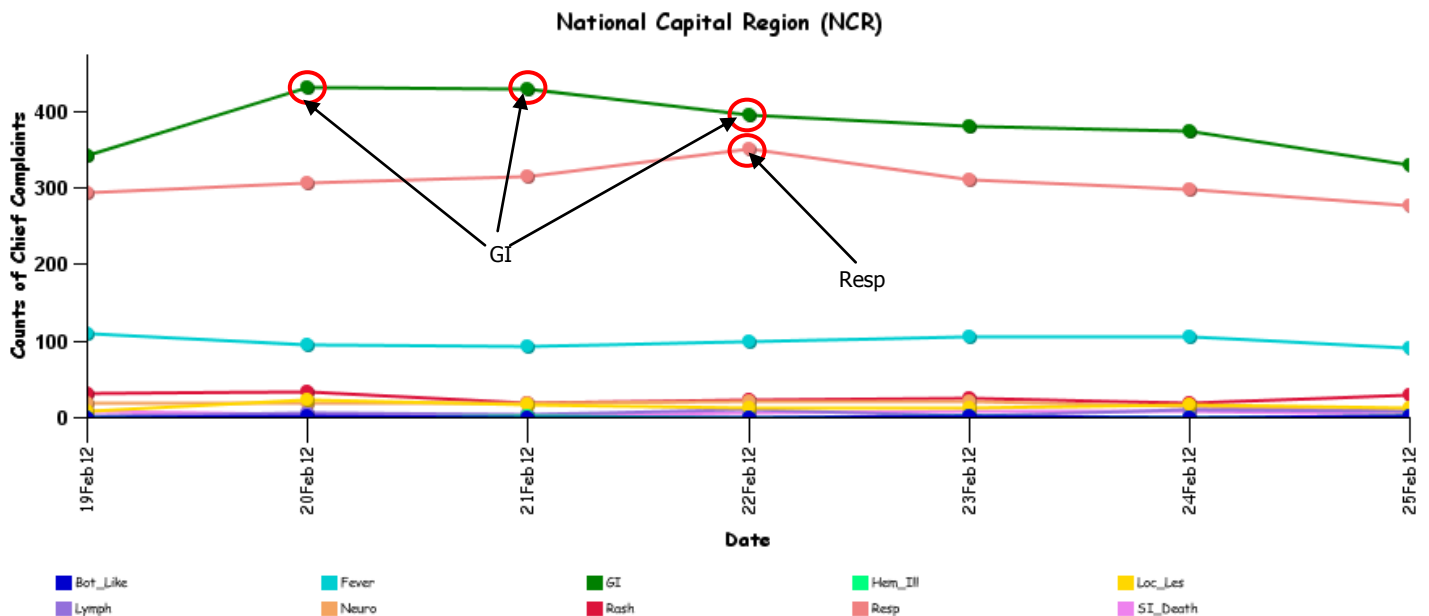
**National:** No Active Alerts  
**Maryland:** Level One (MEMA status)

### SYNDROMIC SURVEILLANCE REPORTS

#### **ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):**

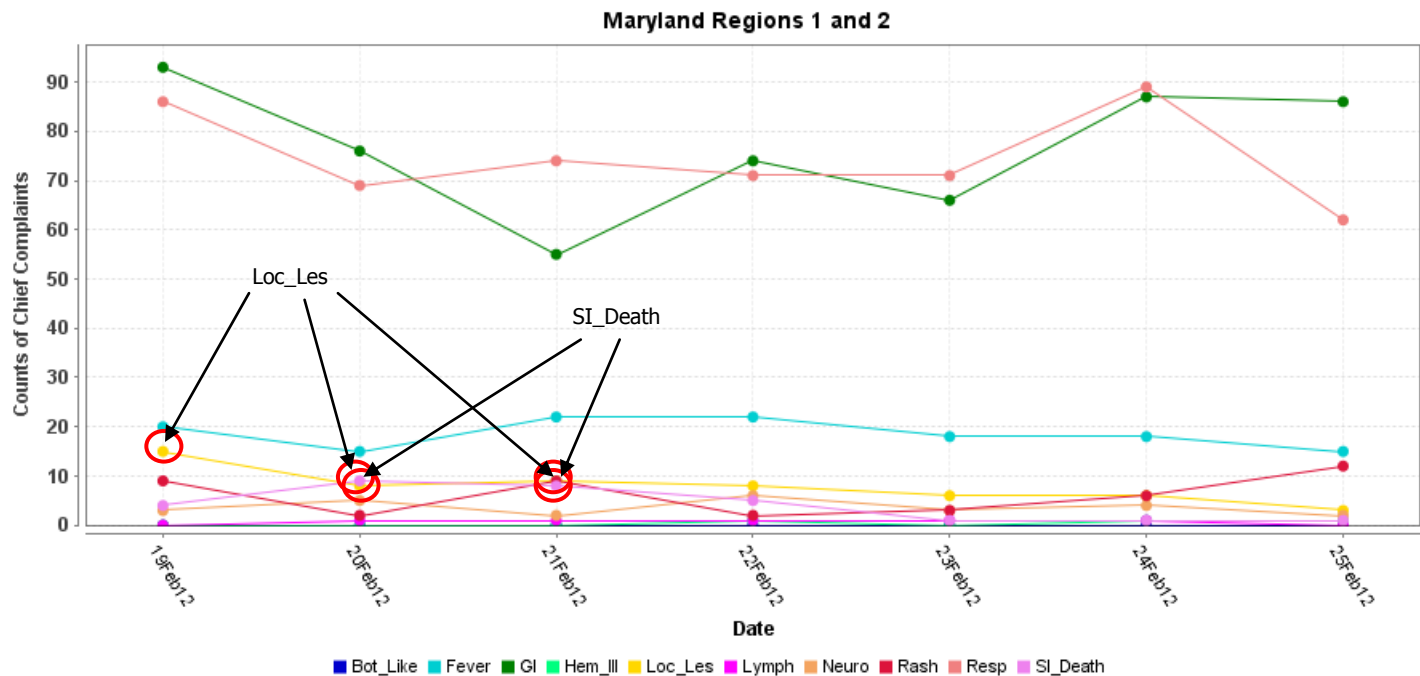
Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts are circled. Red alerts are generated when observed count for a syndrome exceeds the 99% confidence interval. Note: ESSENCE – ANCR uses syndrome categories consistent with CDC definitions.

Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.

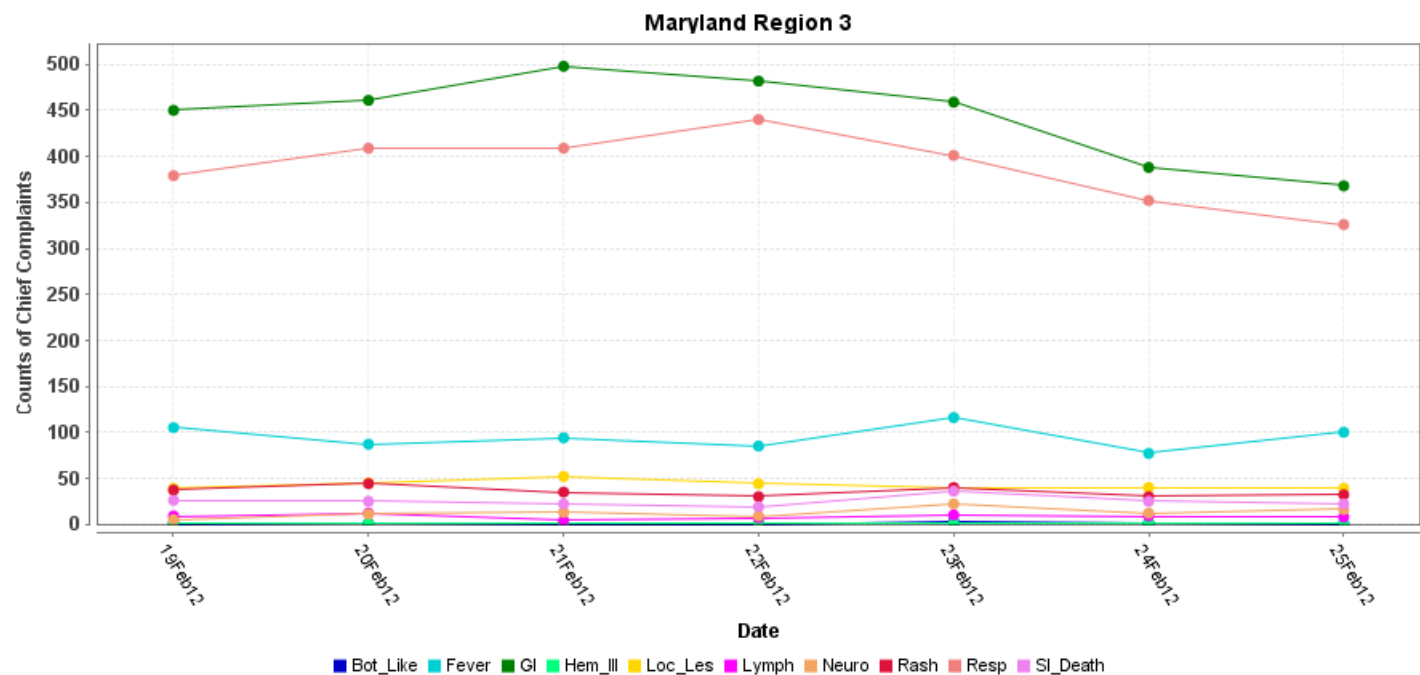


\*Includes EDs in all jurisdictions in the NCR (MD, VA, and DC) reporting to ESSENCE

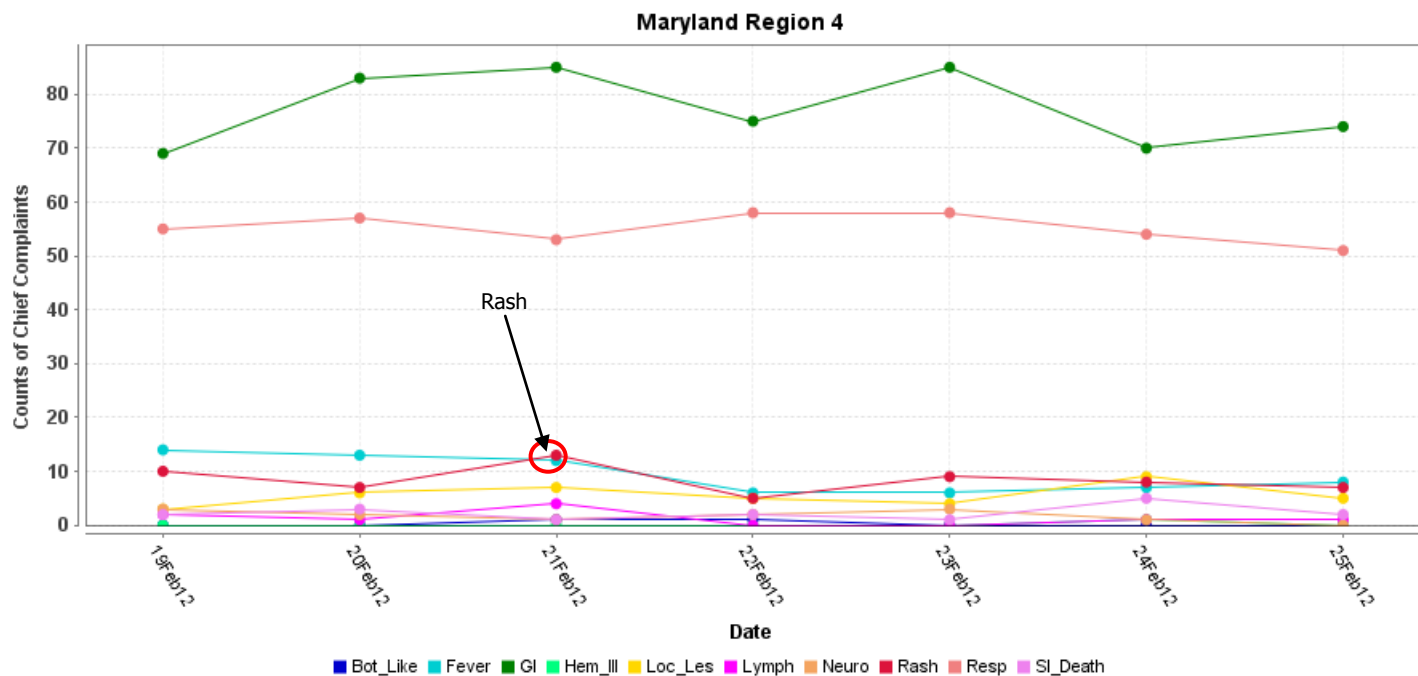
**MARYLAND ESSENCE:**



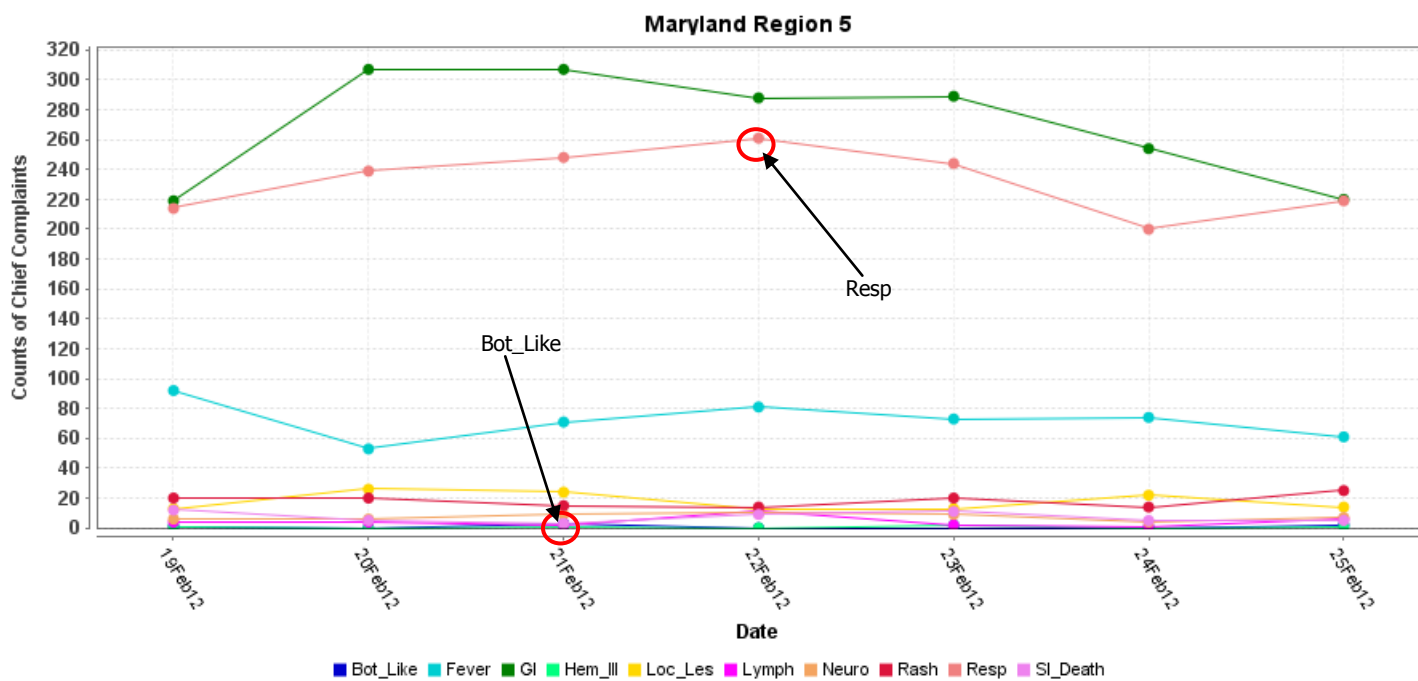
\* Region 1 and 2 includes EDs in Allegany, Frederick, Garrett, and Washington counties reporting to ESSENCE



\* Region 3 includes EDs in Anne Arundel, Baltimore City, Baltimore, Carroll, Harford, and Howard counties reporting to ESSENCE



\* Region 4 includes EDs in Cecil, Dorchester, Kent, Somerset, Talbot, Wicomico, and Worcester counties reporting to ESSENCE

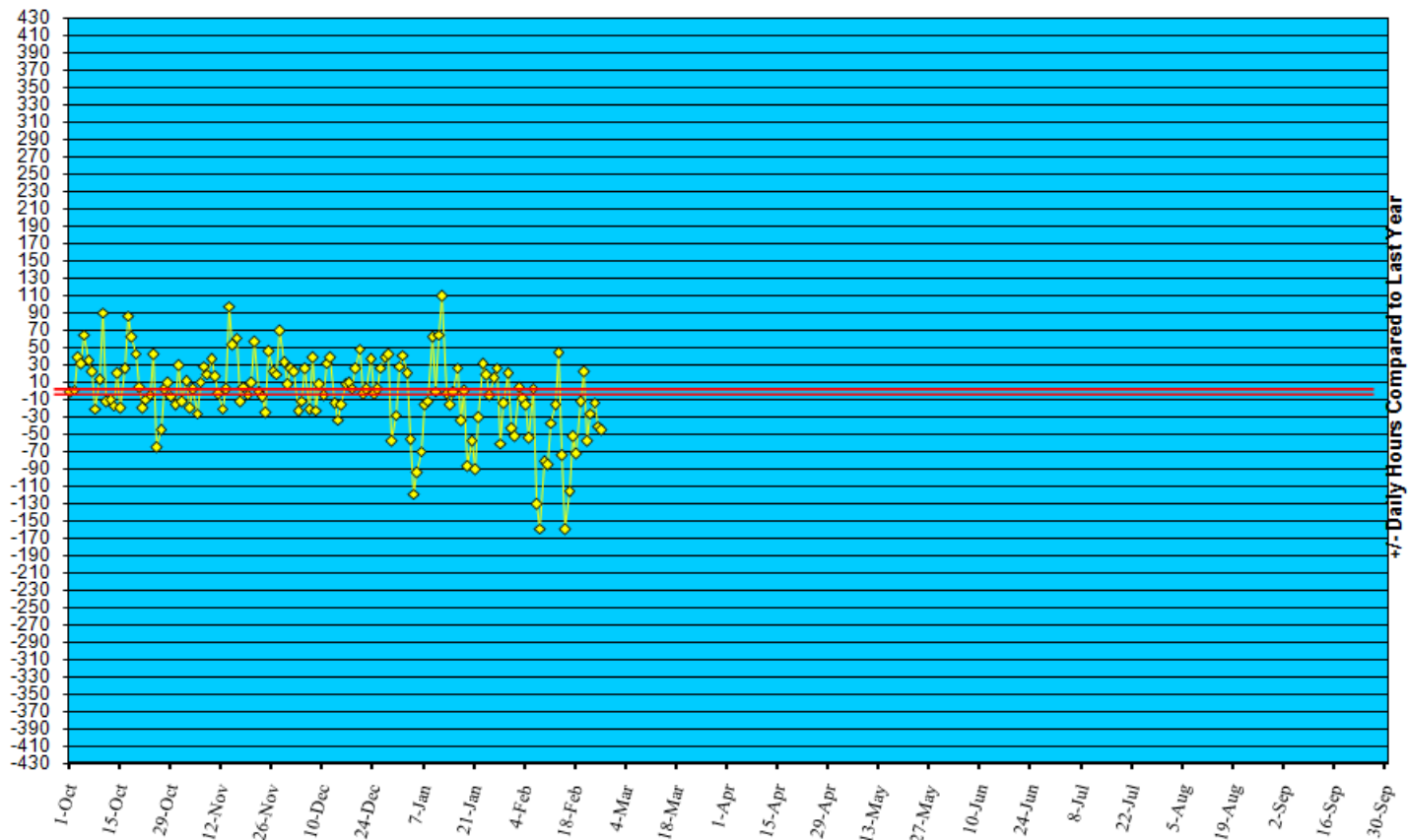


\* Region 5 includes EDs in Calvert, Charles, Montgomery, Prince George's, and St. Mary's counties reporting to ESSENCE

## **REVIEW OF EMERGENCY DEPARTMENT UTILIZATION**

**YELLOW ALERT TIMES (ED DIVERSION):** The reporting period begins 10/01/11.

### **Statewide Yellow Alert Comparison Daily Historical Deviations October 1, '11 to February 25, '12**



## **REVIEW OF MORTALITY REPORTS**

**Office of the Chief Medical Examiner:** OCME reports no suspicious deaths related to an emerging public health threat for the week.

## **MARYLAND TOXIDROMIC SURVEILLANCE**

**Poison Control Surveillance Monthly Update:** Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in January 2012 did not identify any cases of possible public health threats.

## **REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS**

### **COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):**

<b>Meningitis:</b>	<b><u>Aseptic</u></b>	<b><u>Meningococcal</u></b>
New cases (February 19 – February 25, 2012):	5	0
Prior week (February 12 – February 18, 2012):	10	0
Week#8, 2011 (February 20 – February 26, 2011):	14	0

## 14 outbreaks were reported to DHMH during MMWR Week 8 (February 19 – 25, 2012)

### 11 Gastroenteritis outbreaks

6 outbreaks of GASTROENTERITIS in Nursing Homes  
2 outbreaks of GASTROENTERITIS in Assisted Living Facilities  
2 outbreak of GASTROENTERITIS in Hospitals  
1 outbreak of GASTROENTERITIS in an Adult Daycare Center

### 1 Foodborne outbreak

1 outbreak of GASTROENTERITIS/FOODBORNE associated with a Restaurant

### 1 Respiratory illness outbreak

1 outbreak of INFLUENZA in a Nursing Home

### 1 Rash illness outbreak

1 outbreak of RINGWORM associated with a School

## **MARYLAND SEASONAL FLU STATUS**

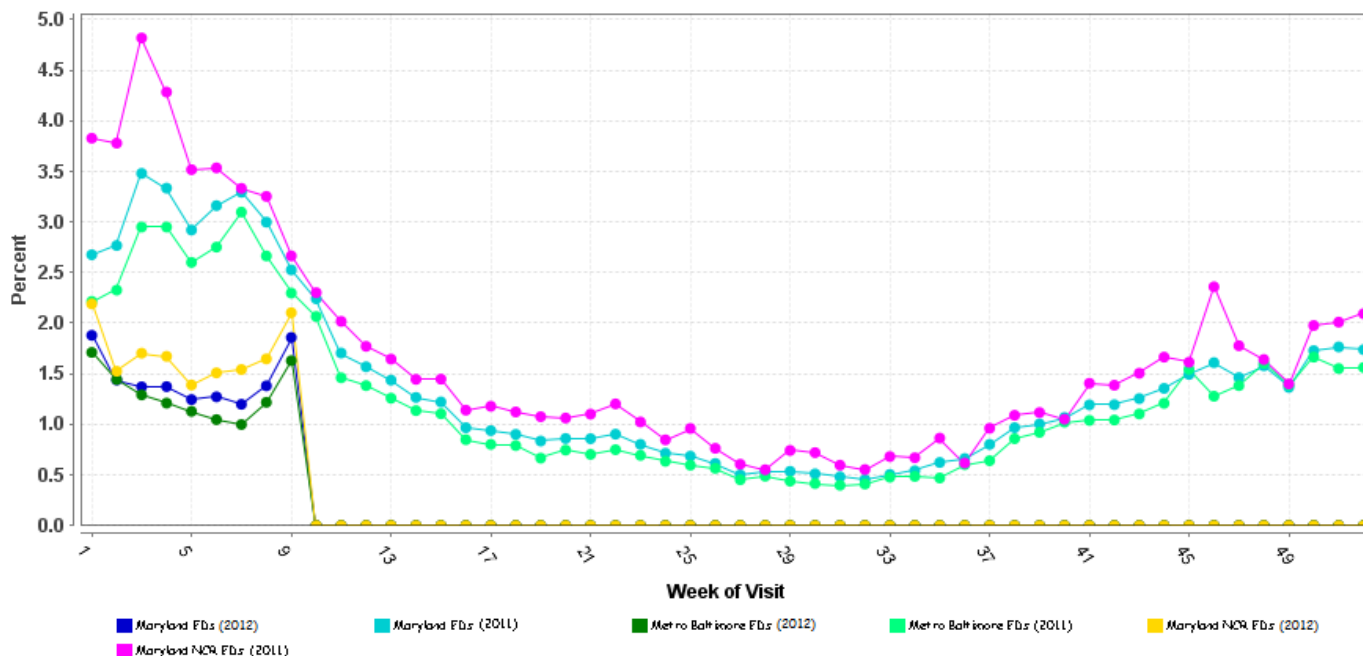
Seasonal Influenza reporting occurs October through May. Seasonal influenza activity for Week 8 was: Sporadic Activity, Low Intensity.

## **SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS**

Graphs show the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. These graphs do not represent confirmed influenza.

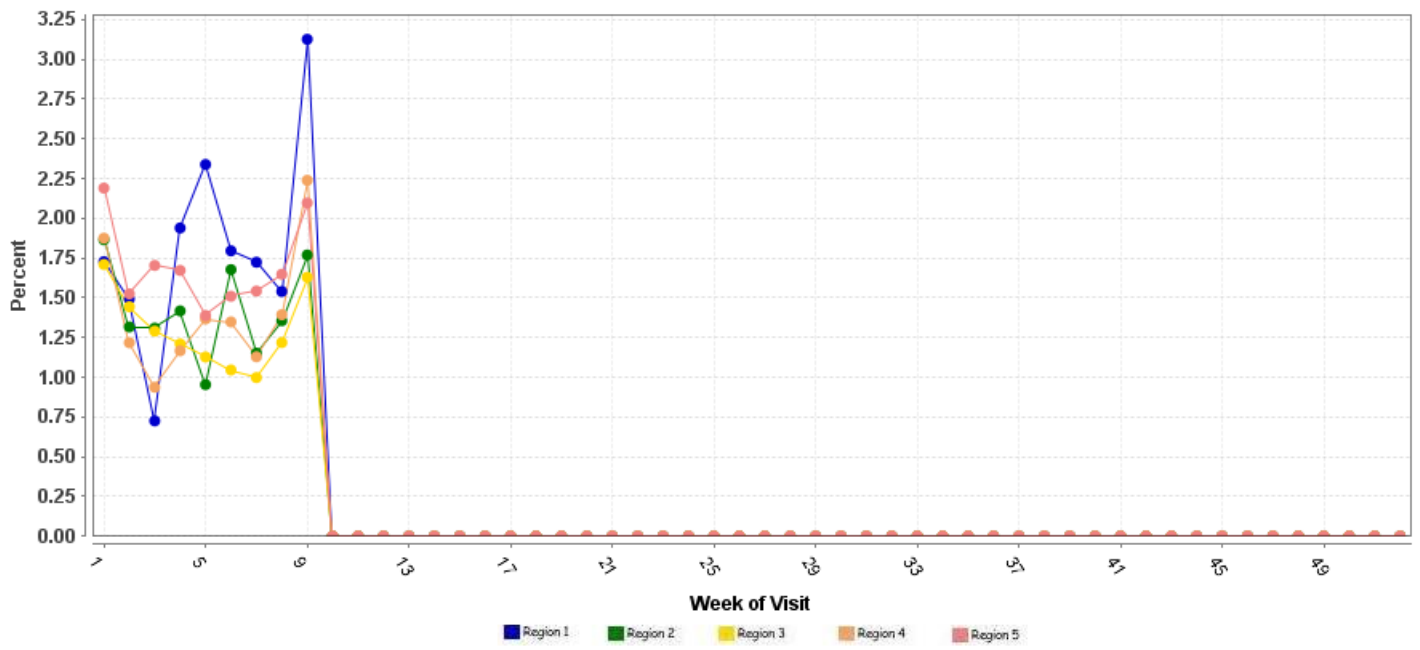
Graphs show proportion of total weekly cases seen in a particular syndrome/subsyndrome over the total number of cases seen. Weeks run Sunday through Saturday and the last week shown may be artificially high or low depending on how much data is available for the week.

**Weekly Percentage of Visits for ILI**



\* Includes 2011 and 2012 Maryland ED visits for ILI in Metro Baltimore (Region 3), Maryland NCR (Region 5), and Maryland Total

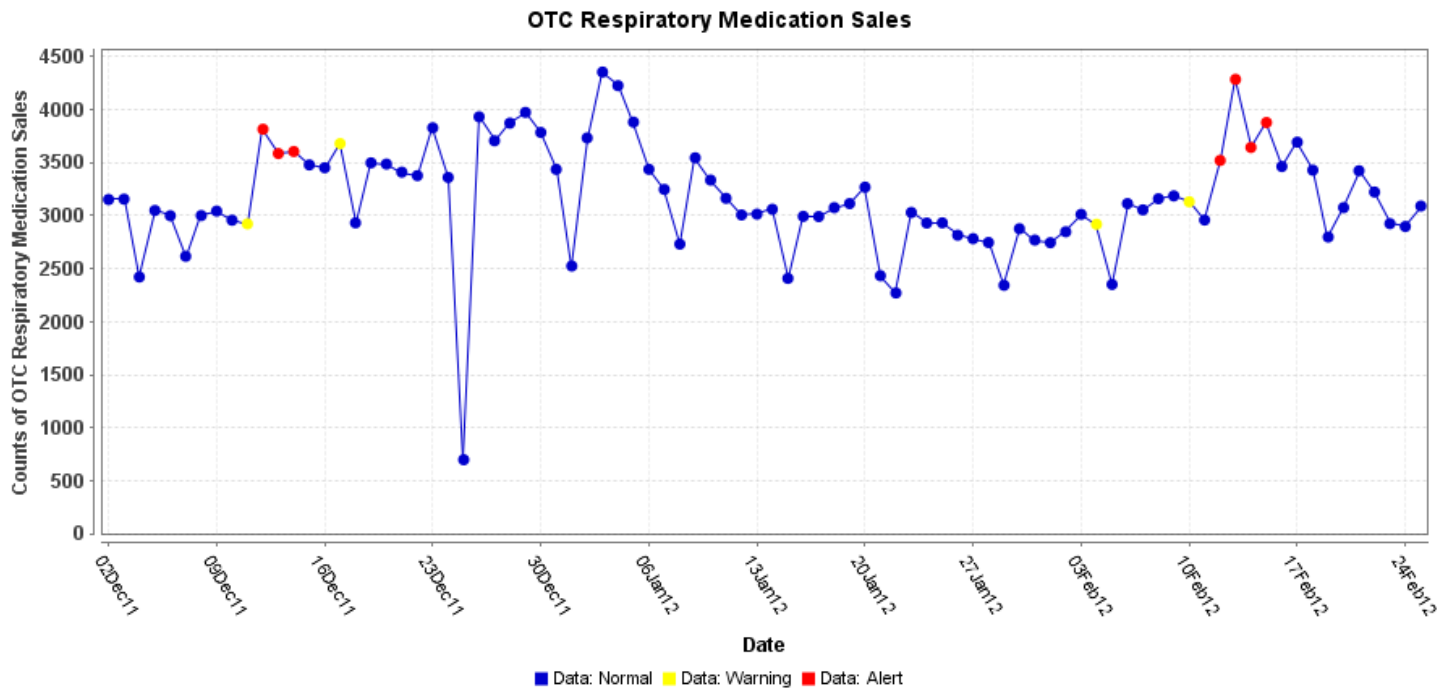
**Weekly Percentage of Visits for ILI**



\*Includes 2012 Maryland ED visits for ILI in Region 1, 2, 3, 4, and 5

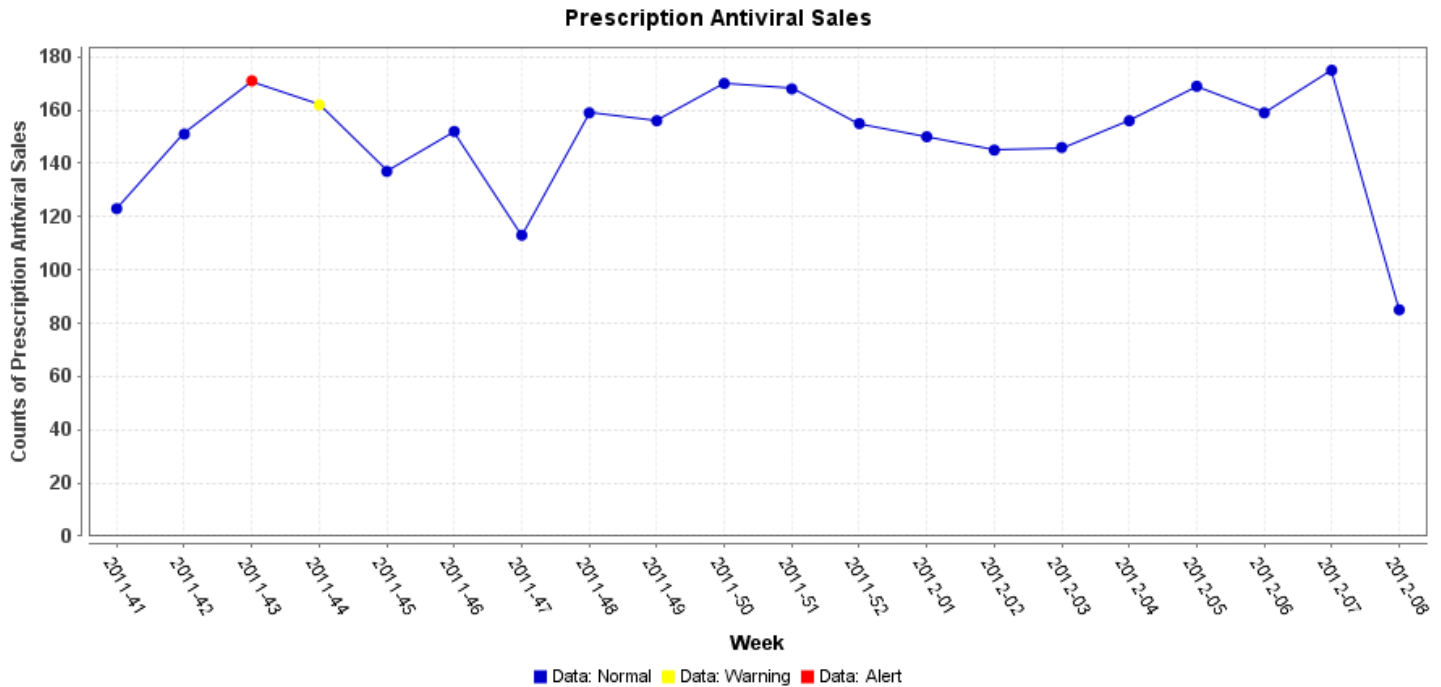
#### OVER-THE-COUNTER (OTC) SALES FOR RESPIRATORY MEDICATIONS:

Graph shows the daily number of over-the-counter respiratory medication sales in Maryland at a large pharmacy chain.



## **PRESCRIPTION ANTIVIRAL SALES:**

Graph shows the weekly number of prescription antiviral sales in Maryland.



## **PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS**

**WHO update:** The current WHO phase of pandemic alert for avian influenza is 3. Currently, the avian influenza H5N1 virus continues to circulate in poultry in some countries, especially in Asia and northeast Africa. This virus continues to cause sporadic human infections with some instances of limited human-to-human transmission among very close contacts. There has been no sustained human-to-human or community-level transmission identified thus far.

In **Phase 3**, an animal or human-animal influenza reassortant virus has caused sporadic cases or small clusters of disease in people, but has not resulted in human-to-human transmission sufficient to sustain community-level outbreaks. Limited human-to-human transmission may occur under some circumstances, for example, when there is close contact between an infected person and an unprotected caregiver. However, limited transmission under such restricted circumstances does not indicate that the virus has gained the level of transmissibility among humans necessary to cause a pandemic.

As of February 24, 2012, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 587, of which 346 have been fatal. Thus, the case fatality rate for human H5N1 is approximately 59%.

**AVIAN INFLUENZA, HUMAN (VIET NAM):** 25 February 2012, As of 8 Feb 2012, the Ministry of Health (MoH) has announced a confirmed case of human infection with avian influenza A (H5N1) virus. The case was a 26 year-old pregnant female from Soc Trang province. She developed symptoms on 23 Jan 2012, and was admitted to hospital on 25 Jan 2012. She was treated with Oseltamivir on 27 Jan, she died on 28 Jan 2012. Confirmatory test results for influenza A (H5N1) were obtained on 30 Jan 2012 by Pasteur Institute, the WHO National Influenza Centre in Ho Chi Minh City, Viet Nam. Samples from the newborn infant of the fatal case tested negative for H5N1. The case had slaughtered and eaten sick chickens. MoH, the local health sector and Pasteur Institute in Ho Chi Minh City are conducting epidemiological investigation and strengthening surveillance and response activities. Close contacts of the fatal case have received prophylaxis and are being monitored; to date all remain well. The Department of Animal Health is collaborating with the human health sector. The case is the 121st person in Viet Nam to become infected with the H5N1 virus. To date, 61 of these cases have died from complications of the disease.

**AVIAN INFLUENZA, HUMAN (INDONESIA):** 24 February 2012, Radar Bali reports the death of a 12-year-old child from South Bali due to Bird Flu [avian A/(H5N1) influenza virus infection]. The child, identified only with the initials WM, died in the isolation ward of Denpasar's Sanglah General Hospital at 3:00 a.m. on Tue 21 Feb 2012. The child was transferred to the Bird Flu Unit at Sanglah Hospital only 5 hours prior to death after being warded for 5 days at the Puri Raharja Hospital, also in Denpasar. Dr. Ken Wirasandshi, the head of the Bird Flu Team at Sanglah Hospital, said the child was suffering from respiratory distress with laboratory tests showing the virus [to be] avian influenza. The child's parents, however, deny any contact with poultry prior to the onset of the disease. Initially misdiagnosed, the child was admitted to the Puri Raharja Hospital as a case of typhus.

**AVIAN INFLUENZA, HUMAN (EGYPT):** 24 February 2012, The Ministry of Health and Population of Egypt has notified WHO of a new case of human infection with avian influenza A (H5N1) virus. The case is a one year-old female from Gharbia governorate. She developed symptoms on 14 Feb 2012 and was admitted to a hospital on 15 Feb 2012, where she received oseltamivir treatment upon admission. She is in good medical condition.

Epidemiological investigation into the source of infection is ongoing. Preliminary investigations indicate presence of backyard poultry in her area of residence. The case was confirmed by the Central Public Health Laboratories; a National Influenza Center of the WHO Global Influenza Surveillance Network. Of the 160 cases confirmed to date in Egypt, 55 have been fatal.

**AVIAN INFLUENZA, HUMAN (EGYPT):** 22 February 2012, As of 22 Feb 2012, The Ministry of Health and Population of Egypt has notified WHO of a new case of human infection with avian influenza A (H5N1) virus. The case is a 45-year-old female from Menofia governorate. She developed symptoms on 10 Feb 2012, received oseltamivir treatment on 17 Feb 2012, and is still recovering. The case was laboratory confirmed by the Central Public Health Laboratories; a National Influenza Center of the WHO Global Influenza Surveillance Network, on 18 Feb 2012. Epidemiological investigation into the source of infection indicates that the case had exposure to backyard poultry. Of the 160 cases confirmed to date in Egypt, 55 have been fatal.

**AVIAN INFLUENZA, HUMAN (INDONESIA):** 21 February 2012, As of 21 Feb 2012 the Ministry of Health of Indonesia has announced one new confirmed case of human infection with avian influenza A(H5N1) virus. The case is a 19-year-old female from Banten Province. She developed symptoms on 8 Feb 2012, was hospitalised on 12 Feb 2012 and died on 13 Feb 2012. Epidemiological investigation is ongoing by the Ministries of Health and Agriculture. Of the 185 cases confirmed to date in Indonesia, 153 have been fatal.

## **NATIONAL DISEASE REPORTS**

**There were no national disease reports for MMWR Week 8.**

## **INTERNATIONAL DISEASE REPORTS**

**LASSA FEVER (NIGERIA):** 18 February 2012, In the last 6 weeks 40 people have died across the country from the outbreak of Lassa fever. So far, 397 cases have been reported and all patients are to be treated free. This was disclosed in a statement by the minister of health, Prof Onyebuchi Chukwu, yesterday [21 Feb 2012]. The minister said that 6 of the dead were health workers (2 doctors and 4 nurses) and that cases have been reported in 12 states: Edo, Nasarawa, Plateau, Ebonyi, Taraba, Yobe, Ondo, Rivers, Gombe, Anambra, Delta, and Lagos. Out of the 397 cases reported, only 87 cases have been positively confirmed by medical officials. Chukwu narrated the case of a 28-year-old female corps member who completed her 3 weeks orientation in Rivers State but travelled home to visit her families in Afikpo and Abakiliki, capital of Ebonyi State, where she contracted the fever on 1 Jan 2012 and died 2 days later. On what the Ministry is doing to contain the situation, Chukwu said adequate quantities of ribavirin injections and tablets, the specific antiviral drug for Lassa fever, have been released to the affected states. He also said that the ministry has deployed rapid response teams to all affected states and there is great emphasis on routine barrier nursing precautions. Chukwu added that no travel restriction will be imposed on the affected areas but hotlines have been provided for health workers for expert advice. The numbers are: 08037154575, 08023214998, 08037879701, and 08023047101. However, the minister of state for health, Dr Muhammad Ali Pate, in a media conference yesterday [21 Feb 2012], said the ministry has also distributed over 750 000 ribavirin doses of injection and tablets as well as safety gloves and protective vests for health workers. He said that there are 9 specialist centres across Nigeria where tests on Lassa fever can be done. Pate advised Nigerians not to panic as the government is responding promptly and effectively to the outbreak. Lassa fever is a viral disease that attacks the liver, nervous system, spleen, and kidney, causing them to bleed, hence the haemorrhagic fever designation. According to the online encyclopaedia Wikipedia, Lassa fever was first described in 1969 in the town of Lassa, in Borno State, Nigeria, in the Yedseram river valley at the south end of Lake Chad. It is an infection that is endemic in the West African countries of Liberia, Sierra Leone, Guinea, and even Central African Republic and Congo DR. About 300 000 to 500 000 cases occur annually, with approximately 5000 deaths. Symptoms of Lassa fever include fever, retrosternal pain (pain behind the chest wall), sore throat, back pain, cough, abdominal pain, vomiting, diarrhoea, conjunctivitis, facial swelling, proteinuria (protein in the urine), and mucosal bleeding, bleeding from the mouth, nose, vagina, or gastrointestinal tract and low blood pressure. The virus lives in rats and infects humans when they come in contact with these rats' urine and faeces. Pate explained that increasing awareness is being created for Nigerians to avoid rats and keep them away from stored food and drinking water. People living in rural areas or in crowded and unsanitary environments, where rats breed, are at the greatest risk. However, health experts warn that Lassa fever can be contracted through body fluids like blood and excrements of infected persons. (Viral Hemorrhagic Fevers are listed in Category A on the CDC List of Critical Biological Agents) \*Non-suspect case

**GRAM NEGATIVE BACILLI, MDR (BRAZIL):** 19 February 2012, On 15 Dec 2011, a KPC [Klebsiella pneumoniae carbapenemase-producing] microorganism was detected for the 1st time at the Hospital Celso Ramos, in Florianopolis, Santa Catarina state, in a patient with a urinary tract infection who had been [transferred] from another hospital in the region. As of 15 Feb 2012, 6 additional patients have been identified [with infections due to KPC-producing organisms]: 2 patients with bloodstream, 1 with surgical wound, 1 with respiratory, and 2 with urinary infections. Another 6 patients had colonization detected in fecal samples. Of the 13 patients, 5 died, 2 were discharged, and 6 remain hospitalized. The isolates were susceptible to polymyxin and amikacin and showed intermediate susceptibility to tigecycline. Of the 13 patients, 9 were hospitalized in the surgical intensive and semi-intensive care units. Standard control measures for infections caused by multidrug resistant bacteria were adopted: contact precautions until discharge for all [culture-]positive cases; an attempt to cohort employees; a separate intensive care unit for [culture-]positive cases and [culture-]negative cases; daily baths with chlorhexidine; education/training of medical and non-medical personnel; early hospital discharge; avoidance of invasive procedures such as bladder catheterization, endotracheal intubation, or deep venous catheterization, or remove these catheters as soon as possible; weekly rectal surveillance cultures in all patients in wards where there have been cases; closure of elective surgery areas for 10 days for cleaning of the environment; disposal of materials that are not for single-use; and surveillance cultures of sinks, stethoscopes, and employees. The infection control service continues to monitor the outbreak. (Emerging Infectious Diseases are listed in Category C on the CDC List of Critical Biological Agents) \*Non-suspect case

## **OTHER RESOURCES AND ARTICLES OF INTEREST**

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website:  
<http://preparedness.dhmh.maryland.gov/>

Maryland's Resident Influenza Tracking System: <http://dhmh.maryland.gov/flusurvey>

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**NOTE:** This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

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## Syndrome Definitions for Diseases Associated with Critical Bioterrorism-associated Agents

**Table: Text-based Syndrome Case Definitions and Associated Category A Conditions**

<b>Syndrome</b>	<b>Definition</b>	<b>Category A Condition</b>
Botulism-like	<p>ACUTE condition that may represent exposure to botulinum toxin</p> <p>ACUTE paralytic conditions consistent with botulism: cranial nerve VI (lateral rectus) palsy, ptosis, dilated pupils, decreased gag reflex, media rectus palsy.</p> <p>ACUTE descending motor paralysis (including muscles of respiration)</p> <p>ACUTE symptoms consistent with botulism: diplopia, dry mouth, dysphagia, difficulty focusing to a near point.</p>	Botulism
Hemorrhagic Illness	<p>SPECIFIC diagnosis of any virus that causes viral hemorrhagic fever (VHF): yellow fever, dengue, Rift Valley fever, Crimean-Congo HF, Kyasanur Forest disease, Omsk HF, Hantaan, Junin, Machupo, Lassa, Marburg, Ebola</p> <p>ACUTE condition with multiple organ involvement that may be consistent with exposure to any virus that causes VHF</p> <p>ACUTE blood abnormalities consistent with VHF: leukopenia, neutropenia, thrombocytopenia, decreased clotting factors, albuminuria</p>	VHF
Lymphadenitis	<p>ACUTE regional lymph node swelling and/ or infection (painful bubo- particularly in groin, axilla or neck)</p>	Plague (Bubonic)
Localized Cutaneous Lesion	<p>SPECIFIC diagnosis of localized cutaneous lesion/ ulcer consistent with cutaneous anthrax or tularemia</p> <p>ACUTE localized edema and/ or cutaneous lesion/ vesicle, ulcer, eschar that may be consistent with cutaneous anthrax or tularemia</p> <p>INCLUDES insect bites</p> <p>EXCLUDES any lesion disseminated over the body or generalized rash</p> <p>EXCLUDES diabetic ulcer and ulcer associated with peripheral vascular disease</p>	Anthrax (cutaneous) Tularemia
Gastrointestinal	<p>ACUTE infection of the upper and/ or lower gastrointestinal (GI) tract</p> <p>SPECIFIC diagnosis of acute GI distress such as Salmonella gastroenteritis</p> <p>ACUTE non-specific symptoms of GI distress such as nausea, vomiting, or diarrhea</p> <p>EXCLUDES any chronic conditions such as inflammatory bowel syndrome</p>	Anthrax (gastrointestinal)

**Syndrome Definitions for Diseases Associated with Critical Bioterrorism-associated Agents**  
(continued from previous page)

<b>Syndrome</b>	<b>Definition</b>	<b>Category A Condition</b>
Respiratory	<p>ACUTE infection of the upper and/ or lower respiratory tract (from the oropharynx to the lungs, includes otitis media)</p> <p>SPECIFIC diagnosis of acute respiratory tract infection (RTI) such as pneumonia due to parainfluenza virus</p> <p>ACUTE non-specific diagnosis of RTI such as sinusitis, pharyngitis, laryngitis</p> <p>ACUTE non-specific symptoms of RTI such as cough, stridor, shortness of breath, throat pain</p> <p>EXCLUDES chronic conditions such as chronic bronchitis, asthma without acute exacerbation, chronic sinusitis, allergic conditions (Note: INCLUDE <i>acute exacerbation</i> of chronic illnesses.)</p>	<p>Anthrax (inhalational)</p> <p>Tularemia</p> <p>Plague (pneumonic)</p>
Neurological	<p>ACUTE neurological infection of the central nervous system (CNS)</p> <p>SPECIFIC diagnosis of acute CNS infection such as pneumococcal meningitis, viral encephalitis</p> <p>ACUTE non-specific diagnosis of CNS infection such as meningitis not otherwise specified (NOS), encephalitis NOS, encephalopathy NOS</p> <p>ACUTE non-specific symptoms of CNS infection such as meningismus, delirium</p> <p>EXCLUDES any chronic, hereditary or degenerative conditions of the CNS such as obstructive hydrocephalus, Parkinson's, Alzheimer's</p>	Not applicable
Rash	<p>ACUTE condition that may present as consistent with smallpox (macules, papules, vesicles predominantly of face/arms/legs)</p> <p>SPECIFIC diagnosis of acute rash such as chicken pox in person &gt; XX years of age (base age cut-off on data interpretation) or smallpox</p> <p>ACUTE non-specific diagnosis of rash compatible with infectious disease, such as viral exanthem</p> <p>EXCLUDES allergic or inflammatory skin conditions such as contact or seborrheic dermatitis, rosacea</p> <p>EXCLUDES rash NOS, rash due to poison ivy, sunburn, and eczema</p>	Smallpox
Specific Infection	<p>ACUTE infection of known cause not covered in other syndrome groups, usually has more generalized symptoms (i.e., not just respiratory or gastrointestinal)</p> <p>INCLUDES septicemia from known bacteria</p> <p>INCLUDES other febrile illnesses such as scarlet fever</p>	Not applicable

**Syndrome Definitions for Diseases Associated with Critical Bioterrorism-associated Agents**  
(continued from previous page)

<b>Syndrome</b>	<b>Definition</b>	<b>Category A Condition</b>
Fever	<p>ACUTE potentially febrile illness of origin not specified</p> <p>INCLUDES fever and septicemia not otherwise specified</p> <p>INCLUDES unspecified viral illness even though unknown if fever is present</p> <p>EXCLUDE entry in this syndrome category if more specific diagnostic code is present allowing same patient visit to be categorized as respiratory, neurological or gastrointestinal illness syndrome</p>	Not applicable
Severe Illness or Death potentially due to infectious disease	<p>ACUTE onset of shock or coma from potentially infectious causes</p> <p>EXCLUDES shock from trauma</p> <p>INCLUDES SUDDEN death, death in emergency room, intrauterine deaths, fetal death, spontaneous abortion, and still births</p> <p>EXCLUDES induced fetal abortions, deaths of unknown cause, and unattended deaths</p>	Not applicable